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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,020	06/26/2003	Patrick Colclasure	PEWTTANAL	5678

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Henry W. Cummings
3313 W. Adams St.
St. Charles, MO 63301

EXAMINER

JASTRZAB, KRISANNE MARIE

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,020

Applicant(s)

COLCLASURE, PATRICK

Examiner

Krisanne Jastrzab

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 (improperly numbered 1-7 and 9-20 originally) is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 1-7, 9-20 (there was no claim 8 in the original numbering) have been renumbered 1-19.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims require performing a series of calculations to establish a measurement of the behavior characteristics of cooling tower waters, however, the specification fails to describe what those calculations are or what they entail, and as

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such has not provided one skilled in the art with the knowledge required to perform that step.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, "the naturally occurring calcium" and "the naturally occurring chloride" lack proper antecedent basis. Further, the recitation of "performing a series of calculations" is found to be vague and indefinite because it is unclear as to what those calculations actually are. Clarification is required.

With respect to claim 2, "the chemical treatment dosing" and "the bleed off rate" lack proper antecedent basis.

With respect to claim 3, this claim fails to further limit the claim from which it depends because it appears to merely reiterate a step already recited in claim 1. Clarification is required.

With respect to claim 4, this claim is found to be vague and indefinite because it is unclear as to whether it is attempting to add a step or redefining a step previously disclosed. Clarification is required.

With respect to claim 5, "the naturally occurring calcium" and "the minimum targeted calcium ion" lack proper antecedent basis. Also, the recitations of "a positive

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tendency” and “a hyperactive tendency” are found to be vague and indefinite because it is unclear what they are “tendencies” toward.

With respect to claim 6, “the behavior of the calcium” lacks proper antecedent basis and the parentheses should be deleted from the claim.

With respect to claim 7, “the administration”, “the cooling water scale and corrosion treatment” and “the behavior of the calcium ion content” lack proper antecedent basis. This claim is further found to be vague and indefinite because it is grammatically incorrect and non-sensical.

With respect to claim 8 (previously numbered 9), “the cycles of concentration” lacks proper antecedent basis and this recitation of “Formula 1” is found to be vague and indefinite because no definition of the formula is provided.

With respect to claim 9 (previously 10), “the theoretical concentration” and “the minimum calcium ion” lack proper antecedent basis. This claim is further found to be vague and indefinite because the parameters of “Formula 2” are not clear and it appears that two different formulas are presented.

With respect to claim 10 (previously 11), this claim is found to be vague and indefinite because it fails to properly further limit the claim from which it depends because it appears to merely reiterate language already recited.

With respect to claim 11 (previously 12), “the calculated theoretical minimum” lacks proper antecedent basis. Further this claim is found to be vague and indefinite because it is unclear as to what the “theoretical minimum” actually is. Clarification is required.

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With respect to claim 12 (previously 13), this claim is found to be vague and indefinite because it fails to properly further limit the claim from which it depends because it merely reiterates language previously presented.

With respect to claim 13 (previously 14), this claim is found to be vague and indefinite because it depends from a claim that does not exist. Also, "the behavior of the calcium ion" lacks proper antecedent basis and it is unclear as to what actual limitations are required by this claim, as the terms therein are not clear.

With respect to claim 14 (previously 15), "the data and response" lack proper antecedent basis.

With respect to claim 15 (previously 16), "the naturally occurring calcium" and "the naturally occurring chloride" lack proper antecedent basis. Further, the recitation of "performing a series of calculations" is found to be vague and indefinite because it is unclear as to what those calculations actually are. Clarification is required.

With respect to claim 16 (previously 17), "the chemical treatment dosing" and "the bleed off rate" lack proper antecedent basis.

With respect to claim 17 (previously 18), this claim fails to further limit the claim from which it depends because it appears to merely reiterate a step already recited in claim 16. Clarification is required.

With respect to claim 18 (previously 19), this claim is found to be vague and indefinite because it is unclear as to whether it is attempting to add a step or redefining a step previously disclosed. Clarification is required.

With respect to claim 19 (previously 20), "the electronic conductivity" lacks proper antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boffardi et al., U.S. patent No. 4,018,702 in view of Hoots et al., U.S. patent No. 5,411,889.

Boffardi et al., clearly teaches sampling waters in industrial system such as cooling towers and performing titrations to determine the ionic concentration of ions including calcium and chloride to determine the effectiveness of a corrosion inhibitor in such systems. See column 2, lines 20-33, column 10, lines 54-68 and column 11, lines 1-7.

Hoots et al., clearly teaches controlling the treatment of industrial systems such as cooling towers for corrosion inhibition based on monitoring the water characteristics therein and adjusting treatment based on such monitoring. See the abstract, column 1, lines 50-68, column 2, lines 1-5, column 3, lines 55-68, column 4, lines 1-35, column 6, lines 25-68, column 7, lines 1-10, column 8, lines 28-38 and lines 63-68 and column 10.

It would have been obvious to one of ordinary skill in the art to perform the tests taught in Boffardi et al., on samples drawn for the system and adjusting the treatment based on the results of those tests as taught in Hoots et al., because it would ensure the maintenance of effective corrosion inhibition.

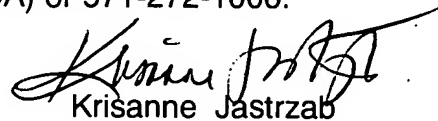
In view of the fact the lack of enablement and the vague and indefinite condition of the claims, it is deemed that this rejection is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.-Thurs. 6:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Krisanne Jastrzab
Primary Examiner
Art Unit 1744

August 12, 2006